DOCUMENT RESUME

ED 257 525 JC 850 300

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TITLE High School Graduates: A Market Share Analysis.
INSTITUTION Dutchess Community Coll., Poughkeepsie, N.Y.
PUB DATE Jul 85
NOTE 32p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *College Bound Students; Community Colleges; *Enrollment Trends; *High School Graduates; *Place of Residence; Postsecondary Education; *Two Year College Students

ABSTRACT

This report presents results of an analysis of the market share that Dutchess Community College (DCC) has of high school graduates in its service area and the larger demographic trends affecting DCC enrollment. Introductory material highlights the purpose of the study (i.e., to understand the college's market share in order to increase enrollments of traditional college-age students) and background variables (i.e., the projected decline by 29% from 1980 to 1995 in the total population of 15-19 year olds in Dutchess County). This section includes data on fall enrollments in Dutchess County elementary and secondary schools, and high school and population projections from 1982 to 2001. Next, data are provided on Dutchess County's 13 public school districts, which contain 14 public high schools. Tables present data on the population of the school districts and the school-age children in these districts. Next, information is provided on Dutchess County high school graduates, including the total number of public and non-public school graduates in Dutchess County by high school for 1980 through 1984. Then, the DCC market share of high school graduates is examined in terms of the numbers of Dutchess County high school graduates who enrolled at DCC from 1980 to 1984 and the percent of each high school graduating class enrolling at DCC during this period. Comparative percents for applicants and enrollees at DCC are presented for 1984. Finally, study conclusions and recommendations are provided. (HB)

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Dutchess Community College
Poughkeepsie, New York

HIGH SCHOOL GRADUATES: A MARKET SHARE ANALYSIS

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DUTCHESS COMMUNITY COLLEGE
POUGHKEEPSIE, NEW YORK

HIGH SCHOOL GRADUATES:
A Market Share Analysis

Dr. Ann A. Weeks, Director
Institutional Research
July 1985

EXECUTIVE SUMMARY

OBSERVATIONS

* In 1980, two-thirds of the school-age children in Dutchess County resided in one of the four school districts of Wappinger, Arlington, Hyde Park, or Poughkeepsie.

* Almost 30% of the County's school age population lived in the Wappinger Central School District.

* Spackenkill School District had a higher proportion of school age children relative to its population and the two city districts of Poughkeespie and Beacon had lower proportions.

* The number of Dutchess County high school graduates increased every year through 1982 and then decreased 4% in 1983 and 2% in 1984.

* The decline in the college-age cohort in Dutchess County will continue until the mid-1990's, resulting in a 29% decrease from 1980 to 1995.

* The four County high schools, Ketcham, Arlington, John Jay, and Roosevelt, which have the greatest number of graduates also send the greatest number of students to DCC.

* DCC receives a significant number of students from Our Lady of Lourdes but hardly any students from the other non-public schools.

* In Dutchess County, 29% of the 1984 high school graduates applied to DCC and 72% of these applicants actually enrolled at DCC.

* The percents that enrollees were of high school graduates declined 2.4% from 1980 to 1984.

* The percentage decrease in DCC enrollees from 1980 to 1984 was more than twice the decrease in high school graduates.

* The annual percent changes in DCC enrollees did not reflect the annual percent increases and decreases in high school graduates between 1980 and 1984.

RECOMMENDATIONS

* Intensify recruiting efforts at Ketcham, Arlington, John Jay, and Roosevelt since those schools send the largest number of students to DCC.

* Conduct focus groups with high school students from various high schools. Also, conduct focus groups with high school graduates who enroll in DCC and with those who enroll in other colleges.

* Survey applicants to determine: the difference between those who come and do not come to DCC, the most important factors in college choice, and what curriculum interests are.

* Do not use annual percent increases or decreases in high school graduates to predict the number of DCC enrollees.

* Keep applicant data every year to secure a basis for comparison. Applicants may be a better predictor of enrollees.

* Research Spackenkill High School to determine why the percent of its graduating class that enrolled at DCC declined 10% in five years.

* Gear marketing efforts to the interests considered most important by students.

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I.

INTRODUCTION

MARKET SHARE ANALYSIS

PURPOSE OF THE STUDY

Now that the predicted decline in the number of traditional college-age students during the 1980's has become a reality, affected colleges are presented with two alternatives. They may either accept and adapt to their lower enrollments or attempt to increase their share of the declining college-age market. In order to do the latter, colleges must first understand both their market share of high school graduates and the larger demographic trends affecting it.

The purpose of this study was to describe these for Dutchess Community College in order that the college may learn where it is, and is not, receiving its share of the high school graduate market. Findings were also expected to be useful for the image analysis soon to be conducted at the College. Hopefully, all of this will point the way for successful marketing to increase enrollments of traditional college-age students.

The study began by showing how total enrollments have been decreasing in Dutchess County public elementary and secondary schools since 1973. Next, projections indicated how the number of college-age students will decline until 1995. Then information concerning Dutchess County high schools and graduates was presented. Concluding the study were data on applicants and actual enrollees by high school.

BACKGROUND

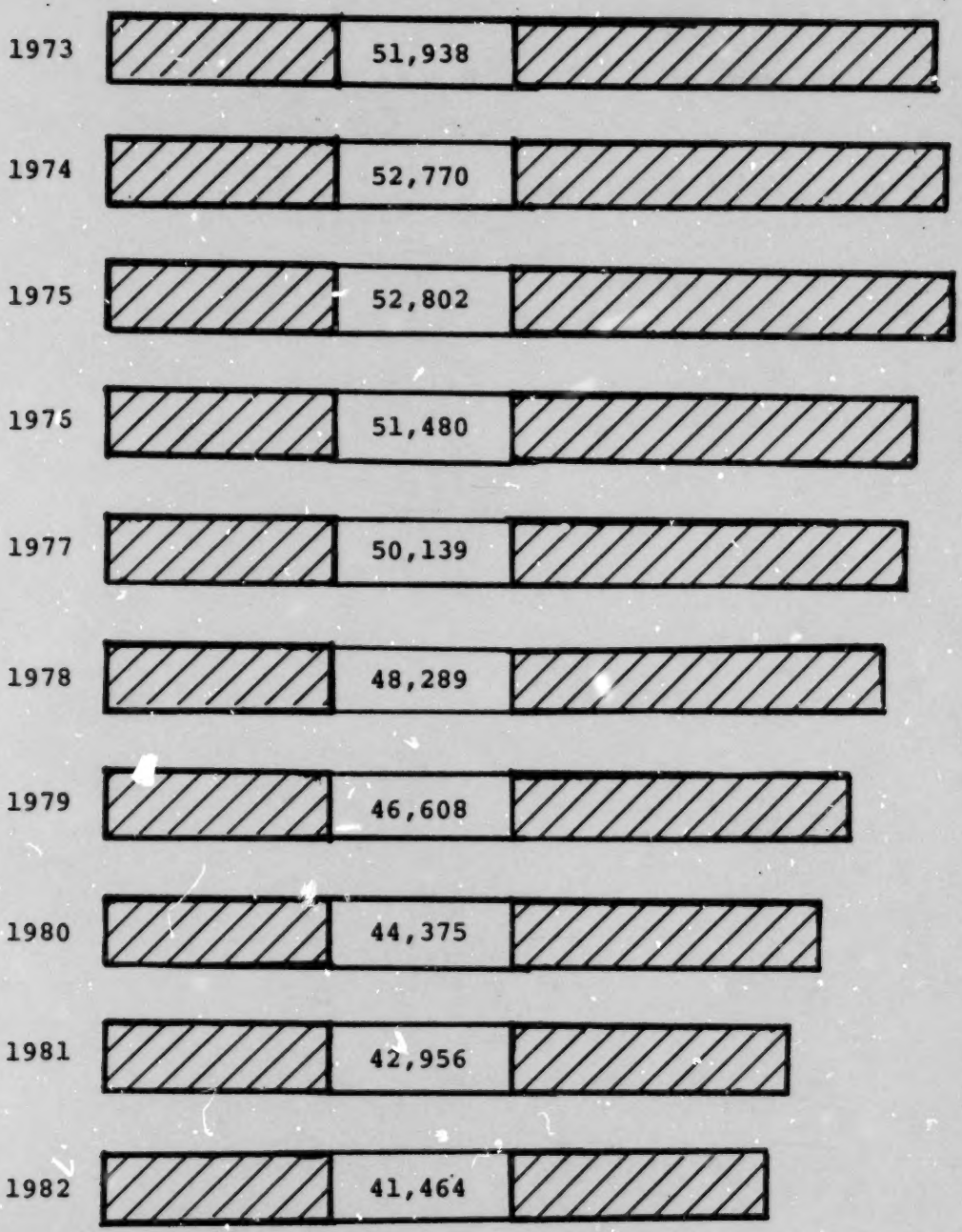
The much publicized national "baby boom", which began in the mid 1940's, was followed by an equally steep decline in the birth rate starting in the mid 1960's. By the middle of the 1970's, this decline began to be reflected in the overall enrollment of Dutchess County's public elementary and secondary schools as can be seen in Figure 1. In the mid 1980's, this lower birth rate cohort reached college age and began affecting college enrollments.

Not only has the cohort of potential college students already decreased but it will continue doing so until 1995. This can be seen in Figure 2 which presents the total population of 15-19 year olds in Dutchess County from 1980 to 2005. This age group is projected to decrease 29% from 1980 until 1995. The same decline is also reflected in Figure 3 which gives projections of the number of graduates in Dutchess County for 1982-2001.

FIGURE 1

FALL ENROLLMENT IN DUTCHESS COUNTY PUBLIC ELEMENTARY AND SECONDARY SCHOOLS*

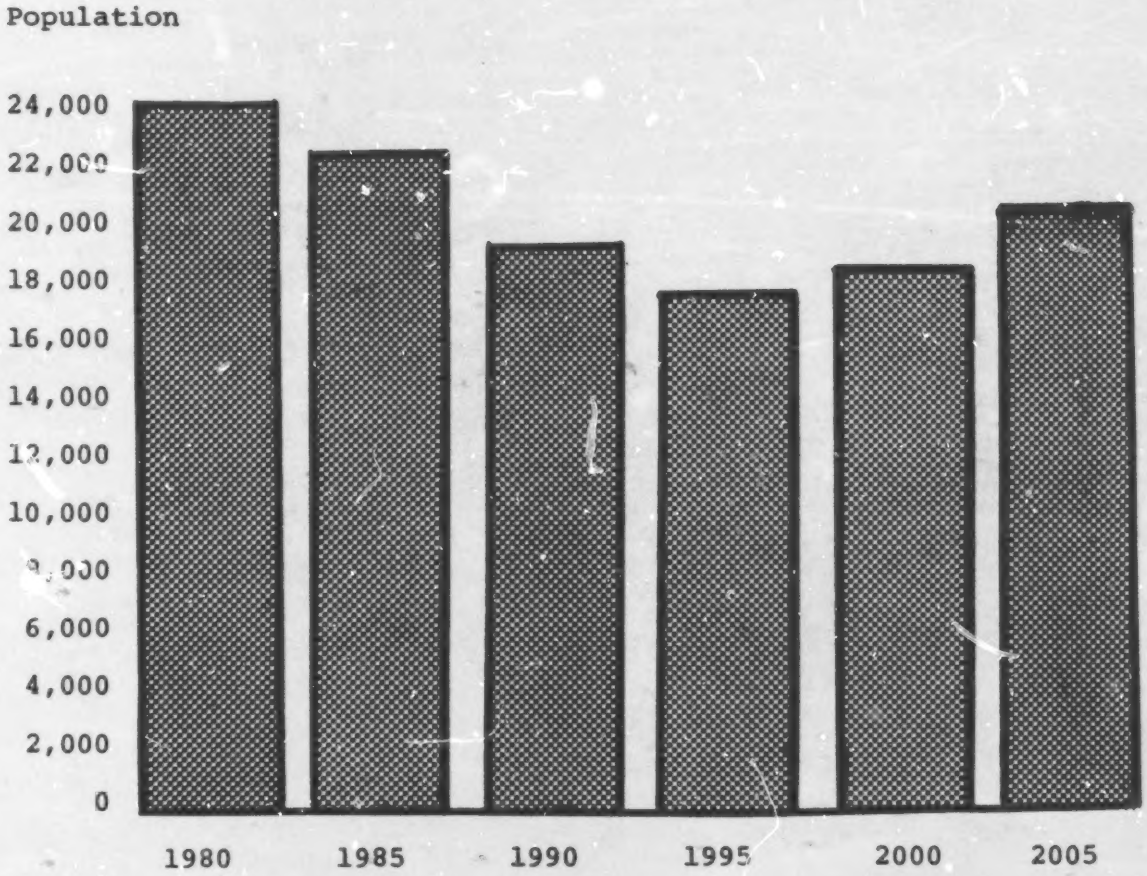
1973 - 1982



*1983 - 1984 NYS Statistics Yearbook

FIGURE 2

POPULATION PROJECTIONS FOR
DUTCHESS COUNTY 15-19 YEAR OLDS
FROM 1980 - 2005*



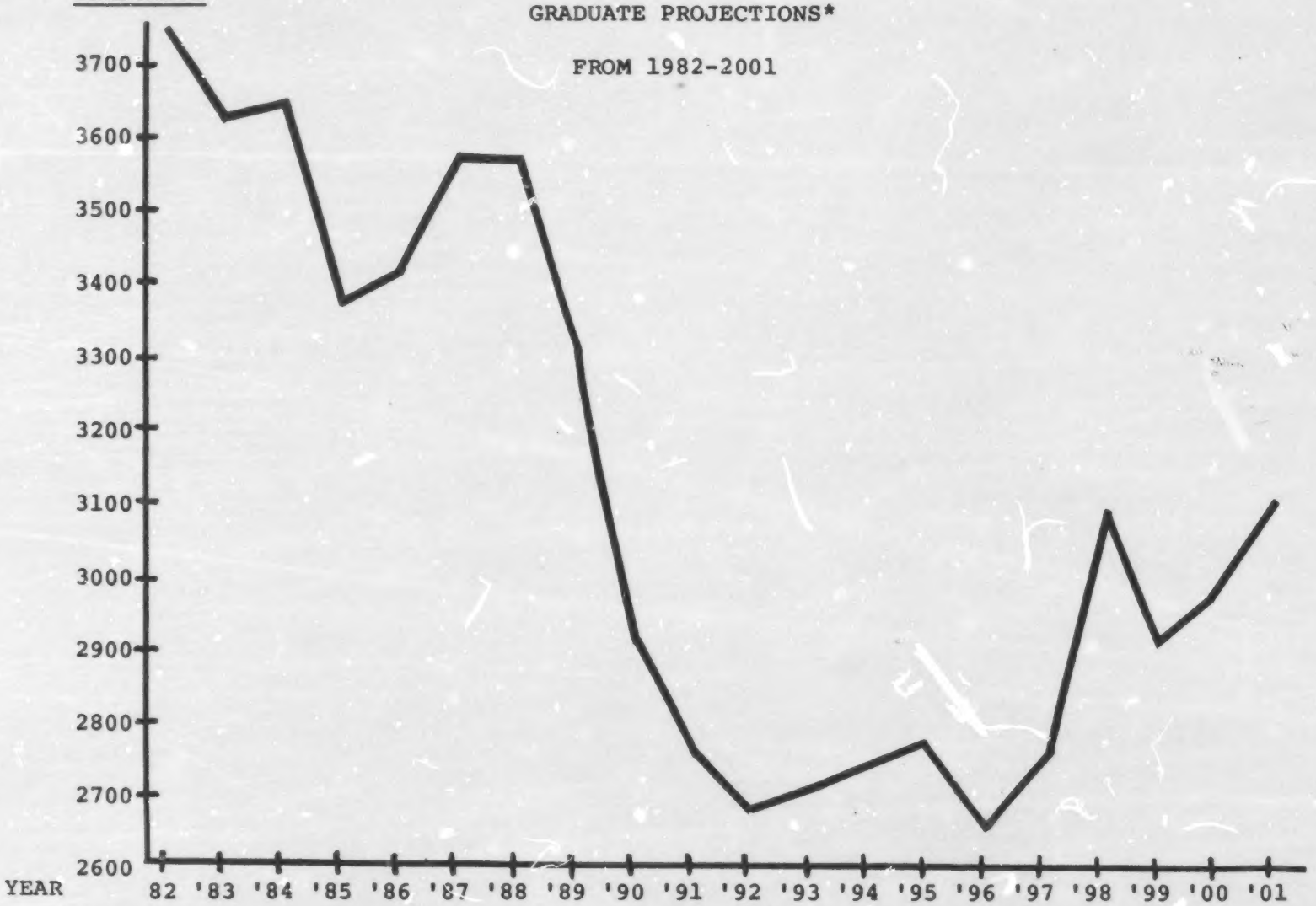
*NYS Department of Commerce Preliminary Projections, 1983

FIGURE 3

DUTCHESS COUNTY HIGH SCHOOL

GRADUATE PROJECTIONS*

FROM 1982-2001



*from SUNY statistics

II.

DUTCHESS COUNTY HIGH SCHOOLS AND GRADUATES

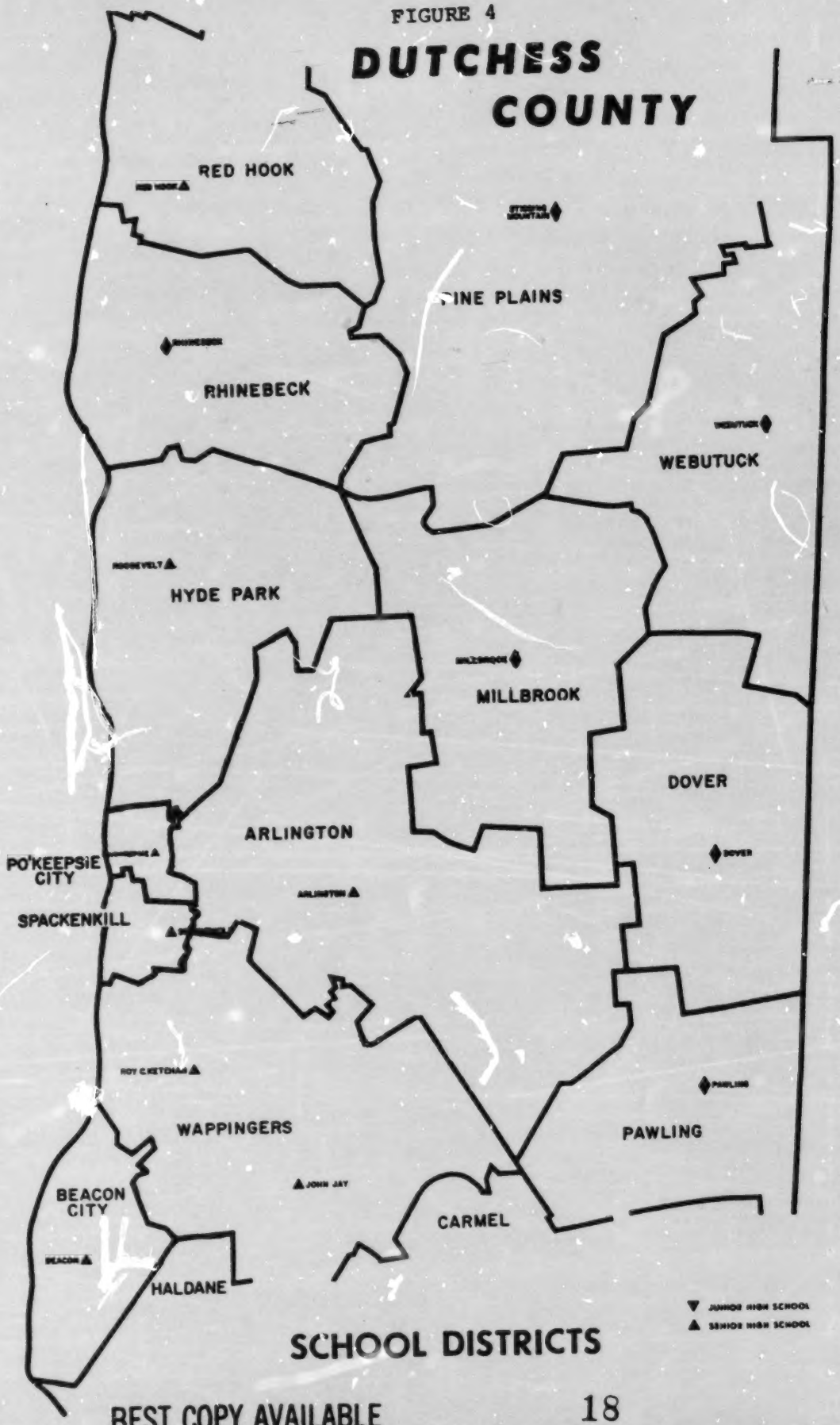
DUTCHESS COUNTY HIGH SCHOOLS

Dutchess County has thirteen public school districts which contain fourteen public high schools. These may be seen on the map of Dutchess County in Figure 4. By far, the largest school district is Wappinger Central School District which had almost 30% of the County school age population in 1980. The next largest school districts are Arlington, Hyde Park, and Poughkeepsie, respectively. Together, these four districts contained two-thirds of the school age children in Dutchess County in 1980.

Table 1 presents the total number of school age children in each of the thirteen school districts and compares the percent these were of the County's school age population to the percent the total school district populations were of the total County population. This comparison clearly indicated that Spackenkill had a higher percent and the two city school districts had lower percents of school age children than would be expected based on their share of the County population. Comparisons for other school districts may be seen in the table.

Dutchess County also has twelve non-public high schools. A significant number of graduates from Our Lady of Lourdes enroll at DCC but very few of the graduates from other non-public schools do. For this reason, all private County high schools, except Lourdes, will be grouped together when reported in this study.

FIGURE 4



SCHOOL DISTRICTS

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TABLE 1

SCHOOL AGE (5-17) POPULATION BY SCHOOL DISTRICTS*
(1980 Census)

	Number of School Age Children	Percent of County School Age Population	Percent School District Population is of County Population
Arlington C.S.D.	8,429	15.8	16.1
Beacon City S.D.	3,902	7.3	8.9
Dover Plains U.F.S.D.	1,695	3.2	4.1
Hyde Park C.S.D.	5,855	11.0	12.0
Millbrook C.S.D.	1,573	3.0	2.6
Pawling C.S.D.	1,462	2.8	2.5
Pine Plains C.S.D.	1,699	3.2	3.2
Poughkeepsie City S.D.	5,178	9.6	12.1
Red Hook C.S.D.	2,169	4.1	3.9
Rhinebeck C.S.D.	1,850	3.5	3.5
Spackenkill U.F.S.D.	2,326	4.4	3.7
Wappinger C.S.D.	15,666	29.5	24.7
Webutuck C.S.D.	1,381	2.6	2.7

* Source: NYS Department of Education

DUTCHESS COUNTY HIGH SCHOOL GRADUATES

The total number of graduates from Dutchess County high schools increased every year through 1982 and then decreased 4% in 1983 and 2% in 1984 (5% and 3%, respectively, if only public schools are considered.) Individual high schools, except Ketcham, Rhinecliff, and the private schools, each showed a decline in graduate numbers from 1980-84.

At Ketcham High School the number of graduates probably increased because the school is located in the heart of the fastest growing section of the County. Rhinecliff is a school for delinquent New York City teen-agers and does not send graduates to DCC. Our Lady of Lourdes is the only Catholic high school in Dutchess County. The other non-public high schools rarely send graduates to DCC.

Table 2 presents the total number of public and non-public high school graduates in Dutchess County by high schools for the years 1980-84. It can be seen that the peak years for numbers of graduates varied for different high schools and the number of graduates from separate high schools rose and fell in differing patterns. Over the five years, individual high schools showed total declines between 1% and 40%. The largest percent losses in graduates were at Beacon, Webutuck, and Pawling while the greatest number losses were at John Jay, Beacon, and Webutuck.

TABLE 2

DUTCHESS COUNTY PUBLIC AND NON-PUBLIC

HIGH SCHOOL GRADUATES*

	June of:				
PUBLIC	1980	1981	1982	1983	1984
Ketcham High School	472	478	515	552	555
Arlington High School	561	622	600	567	531
John Jay High School	526	542	525	482	475
Roosevelt High School	426	396	401	355	393
Poughkeepsie High School	227	240	237	225	191
Spackenkill High School	210	216	196	191	178
Beacon High School	200	193	175	190	159
Red Hook High School	177	189	163	150	147
Rhinebeck High School	112	106	127	100	106
Millbrook High School	90	69	83	80	85
Dover High School	92	78	115	82	82
Stissing Mountain High School	78	90	90	76	77
Pawling High School	87	95	83	92	66
Webutuck High School	103	70	68	70	64
Rhinecliff High School	9	12	10	9	17
NON-PUBLIC					
Our Lady of Lourdes	154	170	194	197	195
All other non-public high schools	159	193	185	202	219
TOTAL	3683	3759	3767	3620	3540

* New York State Education Department
(courtesy James Brady)

DCC MARKET SHARE OF HIGH SCHOOL GRADUATES

Not surprisingly, the four County high schools which have graduated the most students have also supplied the greatest number of enrollees (over 100 students each year) to DCC. These schools are Arlington, John Jay, Ketcham, and Roosevelt. The exact number of students who have enrolled at DCC from these and all Dutchess County high schools between 1980 to 1984 may be seen in Table 3. Besides displaying the overall decline in enrollments, Table 3 also indicates that yearly fluctuations exist which do not correlate with the changes in high school graduate numbers.

The chart below further explains how the percent increases and decreases in high school graduates over these years were not reflected in the percent changes of DCC enrollees. This means that changes in Dutchess County high school graduates are not reliable predictors of enrollments for DCC.

PERCENT CHANGES IN COUNTY HIGH SCHOOL GRADUATES AND DCC ENROLLEES

	1980	1981	1982	1983	1984
Public and Lourdes Graduates	Base Year	+1%	+.4%	-5%	-3%
DCC Enrollees	Base Year	-2%	-8%	+8%	-11%

From 1980 to 1984, the decrease in enrollees was more than twice the decrease in graduates. At the four largest schools, declines in enrollees ranged between 5% and 10%.

TABLE 3

NUMBER OF DUTCHESS COUNTY HIGH SCHOOL GRADUATES
WHO ENROLLED AT DCC FROM 1980-1984*

HIGH SCHOOL	1980	1981	1982	1983	1984
Arlington	148	161	135	148	136
John Jay	140	132	133	135	133
Ketcham	122	107	137	138	114
Roosevelt	122	102	102	97	110
Lourdes	33	43	48	60	41
Poughkeepsie	59	62	40	[illegible]	40
Spackenkill	58	57	45	45	[illegible]
Beacon	36	42	30	31	30
Rhinebeck	24	25	26	20	24
Red Hook	22	35	19	28	23
Dover	11	13	14	12	17
Millbrook	20	[illegible]	12	25	15
Stissing Mountain	19	14	11	19	13
Webutuck	24	8	9	5	8
Other Non-Public	5	4	3	1	4
Pawling	15	15	8	9	2
Rhinecliff	--	--	--	--	--
Total	858	839	772	836	742

* In order of 1984 decreasing enrollments.

The tables and charts so far have demonstrated how both the number of high school graduates and the number of DCC enrollees have declined over the years. In order to determine whether these decreases reflect real declines in DCC's market share, it is important to examine enrollees as percents of high school graduating classes. This is done in Table 4 for each high school from 1980 to 1984.

From Table 4, it can be seen that the percent that enrollees were of high school graduates declined 2.4% from 1980-1984. The four largest high schools not only produced the largest number of DCC enrollees but also had the greatest percents of their graduating classes attend DCC. The percents of graduates attending DCC from Roosevelt, Arlington, and John Jay have remained relatively constant over the past five years. The larger fluctuations shown by the smaller schools most likely reflect the fact that their numbers are so small. Poughkeepsie's fluctuations should be investigated as should Spackenkill's and Ketcham's decreases from 1983 to 1984.

Another important measure for marketing is the relation of applicants to graduates and enrollees. For the County as a whole, 29% of the high school graduates applied to DCC and 72% of these applicants actually enrolled. Percents were higher than these for Roosevelt, Arlington, and John Jay, and closer to the average for Ketcham. Figure 5 illustrates graphically the numerical comparisons of applicants and enrollees by high schools for 1984. Table 5 presents the comparable percents for graduates, applicants and enrollees.

TABLE 4

PERCENT OF HIGH SCHOOL GRADUATING CLASS ENROLLING AT DCC FROM 1980-1984*

HIGH SCHOOL	1980	1981	1982	1983	1984
John Jay	27	24	25	28	28
Roosevelt	29	26	25	27	28
Arlington	26	26	23	26	26
Rhinebeck	21	24	20	20	23
Ketcham	26	22	27	25	21
Poughkeepsie	26	26	17	28	21
Lourdes	21	25	25	30	21
Dover	12	17	12	15	21
Beacon	18	22	17	16	19
Spackenkill	28	26	23	24	18
Millbrook	22	28	14	31	18
Stissing Mt.	24	16	12	25	17
Red Hook	12	19	12	19	16
Webutuck	23	11	13	7	13
Pawling	17	16	10	10	3
Other Non-Public	4	3	2	1	2
Dutchess County	23.3%	22.3%	20.5%	23.1%	20.9%

*In order of descending percents for 1984

FIGURE 5

NUMBER OF DCC APPLICANTS AND ENROLLEES BY HIGH SCHOOL FOR FALL 1984

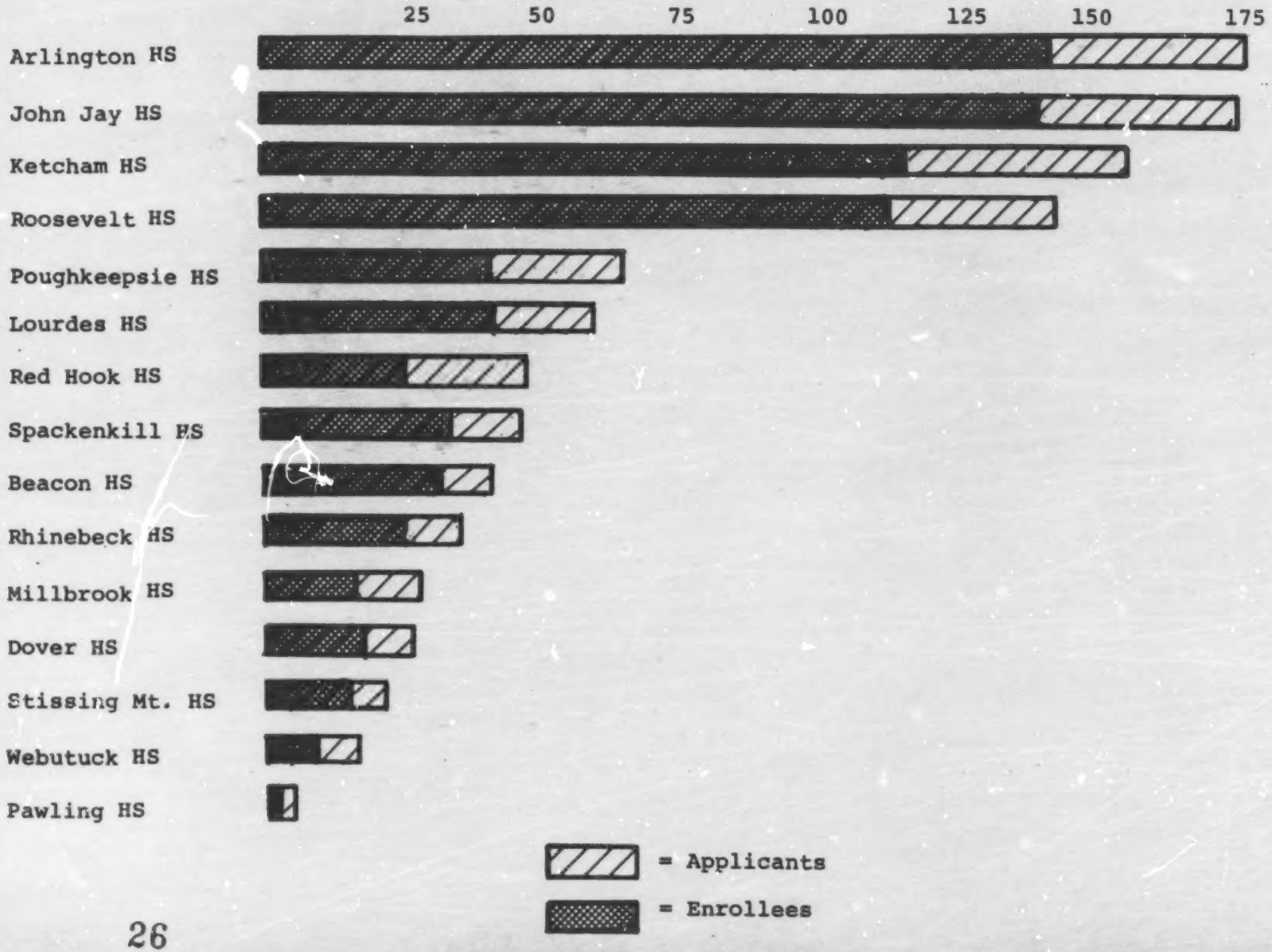

TABLE 5

COMPARATIVE PERCENTS FOR APPLICANTS AND ENROLLEES FOR 1984*

HIGH SCHOOL	Percent Applicants were of HS Graduates	Percent Enrollees were of HS Graduates	Percent Enrollees were of Applicants
Arlington	33	26	77
John Jay	37	28	76
Ketcham	28	21	74
Roosevelt	35	28	80
Poughkeespie	33	21	64
Lourdes	30	21	71
Red Hook	31	16	51
Spackenkill	24	18	74
Beacon	25	19	75
Rhinebeck	32	23	71
Millbrook	32	18	56
Rover	32	21	65
Stissing Mt.	27	17	62
Webutuck	25	13	50
Pawling	8	3	40
Dutchess County	29	21	72

*In order of decreasing DCC applicant numbers

III.

CONCLUSIONS

ANALYSIS

In 1980, two-thirds of the school-age children in Dutchess County resided in one of the four school districts of Wappinger, Arlington, Hyde Park, or Poughkeepsie. Almost 30% of the County's school-age population lived in the Wappinger Central School District which is a high growth population area.

Not all school districts had the same proportion of school age children. Spackenkill School District had a higher proportion of school-age children relative to its population and the two city districts of Poughkeespie and Beacon had lower proportions.

The number of graduates from Dutchess County high schools increased every year through 1982 and then decreased 4% in 1983 and 2% in 1984. This decline in the college-age pool in Dutchess County will continue until the mid-1990's, resulting in a 29% decrease from 1980 - 1995.

The four County high schools (Ketcham, Arlington, John Jay, and Roosevelt) which have the greatest number of graduates also send the greatest number of students to DCC. The College receives a significant number of students from Our Lady of Lourdes but hardly any students from the other non-public schools.

In 1984, 29% of Dutchess County's high school graduates applied to DCC. Of these, 72% actually enrolled at the College.

The percentage decrease in DCC enrollees from 1980 to 1984 was more than twice the percentage decrease in County high school graduates. Annual changes in DCC enrollees did not reflect annual increases and decreases in high school graduates.

The percents that enrollees were of high school graduates declined 2.4% from 1980 to 1984 indicating a decrease in market share.

RECOMMENDATIONS

Since Ketcham, Arlington, John Jay, and Roosevelt send the largest number of students to DCC, recruiting efforts at these schools should be intensified, especially since the Wappingers School District is in the largest growth area of the County. Spackenkill High School should be researched to determine why the percent of its graduating class that enrolled at DCC has declined 10% in five years.

Do not use straight, annual percent increases or decreases in high school graduates to predict the number of DCC enrollees. Other factors, such as unemployment rates, need to be considered. Applicant data should be retained each year to secure a basis

for comparison since applicants may be a better predictor of enrollees.

Conduct focus groups with students from various high schools in an image analysis study. Also conduct focus groups with students who enroll in DCC and with those who enroll in other colleges.

Survey applicants to determine: the difference between those who come and those who do not come to DCC; the most important factors in choosing a college; and what curriculum interests are. Gear marketing efforts to the interests considered most important by students.

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JUL 19 1985